#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Yes

No

N/A

Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 82.28

# WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-017681 Address: 333 Burma Road **Date Inspected:** 26-Oct-2010

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure Prime Contractor: American Bridge/Fluor Enterprises, a JV **OSM Departure Time:** 1530

Contractor: Westmont Industries **Location:** Santa Fe Springs, CA.

**CWI Name:** R. Rodriguez, R. Dominguez **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A Yes N/A N/A **Electrode to specification:** No **Weld Procedures Followed:** Yes No Yes N/A **Qualified Welders:** No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** 

**Delayed / Cancelled:** 

34-0006 **Bridge No: Component:** Travelers

## **Summary of Items Observed:**

The Quality Assurance Inspector Sean Vance arrived on site at Westmont Industries (WMI) in Santa Fe Springs, CA, to randomly observe the in process welding of the Travelers. The QA Inspector arrived on site to randomly observe the WMI Quality Control (QC) Inspectors in process and completed visual and nondestructive testing. Upon the arrival of the QA Inspector the following observations were made:

### **Trolley Test Stand**

On this date, the QA Inspector observed WMI production welder, Mr. Juan Jimenez (WID # 3059), continuing to perform Gas Metal Arc Welding (GMAW) activities for the assembly identified as Rail Y Assembly 2-A4, web to flange. The QA Inspector observed Mr. Jimenez performing the GMAW in the Horizontal (2F) position on the previously fit Web to Bottom Flange plate material and the fit up T-joint appeared to be designated as an 8mm fillet weld. At this time, the QA Inspector observed that the above mentioned GMAW on the above mentioned assembly appeared to be near completion.

#### Traveler Test Rack

On this date, the QA Inspector observed that the earth excavations for the Traveler Test Rack footings, appeared to still be in process.

On this date, the QA Inspector observed WMI production personnel Mr. Jerry Smith, continuing to utilize the flame cutting table, to cut plate material. The QA Inspector then spoke with Mr. Smith and he explained that the material currently being cut, will be utilized for the fabrication of the Traveler Test Rack. The QA Inspector observed that the cutting operations were being performed, utilizing two oxygen acetylene cutting torches and that

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the plate material was stationary on the cutting table. The QA Inspector observed that the two torches were mobile and cutting specific dimensional shapes in the material, which Mr. Smith had previously programmed into the computer software. Once the material was cut, the QA Inspector observed Mr. Smith utilize a paint stick marker to identify the material with the Job #, Dwg. # and piece mark, per the applicable drawing Bill of Material list. The QA Inspector observed that the plate material had been previously inspected with the MTR's provided and the QA Inspector had previously written "OK to Cut" on the material.

### SAS-EB Traveler

**Fixed Stairs Section** 

On this date, the QA Inspector observed Westmont Industries (WMI), production welder, Mr. Jose Rodriguez (WID # 3031), continuing to perform Flux Core Arc Welding (FCAW) activities on the previously fit Frame assemblies, identified as 10-A237, 11-B237, 3-A217, 4-A218, 5-A223 and 6-A224. The QA Inspector observed throughout the shift, that the FCAW was being performed in various positions, on the connector plate and Tube Steel (TS) material. The QA Inspector observed that approximately half way through the shift, that a WMI production helper appeared to be performing grinding activities on the completed fillet and flare groove welds. The QA Inspector observed that the grinding was being performed on areas of the welds, which appeared to be excessive reinforcement and removal of weld spatter.

See attached picture below.

On this date, the QA Inspector observed Westmont Industries (WMI), production welder Eutimo Lopez (WID # 3035), continuing to perform Flux Core Arc Welding (FCAW) activities for the SAS-EB Traveler frames. The QA Inspector observed Mr. Lopez performing the FCAW on previously fit and tack welded Tube Steel (TS) and plate material, for the Frame Assembly identified as B240, per the shop drawings. The QA Inspector observed Mr. Lopez perform the FCAW in various positions and observed that Mr. Lopez appeared to be performing the FCAW on the fillet and flare groove welds, plate to TS material.

#### E2/E3-EB Traveler

On this date, the QA Inspector observed Westmont Industries (WMI) production personnel David Mora utilizing a vertical band saw to perform cutting operations on rectangular and square Tube Steel (TS) material. The QA Inspector observed that Mr. Mora appeared to be cutting specific angles on the previously cut to length TS material. Once the angles were cut, the QA Inspector observed that the material was then placed in a stack, on a nearby wooden pallet. Once stacked, the QA Inspector observed Mr. Mora marking each piece of material, utilizing a paint stick marker, with the Job #, piece mark and Traveler, for which the material will be utilized. Per the identifiable marks on the TS material, the QA Inspector observed that the material will be utilized for the fabrication of the E2/E3-EB Traveler Frame assemblies.

The QA Inspector observed WMI production personnel, Mr. Ruiz Villasenor, continuing to utilize the Pearson shear to cut plate material. The QA Inspector observed that the material being cut, appeared to material which will be utilized for the fabrication of the E2/E3-EB Traveler Frame assemblies. The QA Inspector randomly observed that Mr. Villasenor had copies of the shop drawings and appeared to reference the Bill of Material list, to cut the material to the specific dimensions. Once the material was cut, the QA Inspector observed Mr. Villasenor utilize a paint stick marker to identify each piece of plate material with the Job #, piece mark and Traveler, for which the material will be utilized. The QA Inspector observed that the above mentioned plate material had been previously

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inspected, the MTR's had been previously provided and the QA Inspector had previously written "OK to Cut", on the plate material.

The QA Inspector observed that Smith-Emery QC Inspector Ruben Dominguez was present, during the above mentioned welding and tacking activities and QC Inspector Dominguez explained that approved Welding Procedure Specifications (WPS's) were being utilized. The QA Inspector randomly observed that the applicable WPS's and copies of the shop drawings, were located near each work station, where the above mentioned FCAW and fitting activities were being performed. The QA Inspector randomly verified that the consumable material, utilized during the welding was in compliance to the applicable WPS and that the above mentioned welders were currently qualified for the applicable process and position of welding. The QA Inspector randomly observed QC Inspector Dominguez verifying the in-process welding parameters, including voltage, amperage, pre-heat and travel speed and the parameters appeared to be in compliance to the applicable WPS.



## **Summary of Conversations:**

On this date, the QA Inspector observed that WMI production personnel Mr. Raymundo Anaya and Mr. Cesar Canales, utilizing the overhead shop bay crane to move and relocate material, which had been previously staged in Production Bay 4.

The QA Inspector observed that WMI Production Supervisor Juan Mora was nearby and Mr. Mora explained that this area of Bay 4 is currently being cleared of material, so that the area can be utilized for the fabrication of the SAS-EB, Lower Truss Section Assembly. Later in the shift, the QA Inspector observed that the area had been cleared of material and the above mentioned personnel were in process of erecting a fabrication stand, consisting of Wide Flange Beam (WFB) and channel material.

See attached picture below.

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## **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Vance,Sean	Quality Assurance Inspector
Reviewed By:	Edmondson,Fred	QA Reviewer